

# Advanced Lithography

Microsystems Technology Office

## ◆ GOALS

- INNOVATIVE RESEARCH IN LITHOGRAPHY TECHNOLOGIES FOR FABRICATION OF MICRODEVICES AND STRUCTURES
- PATTERNING OF COMPLEX STRUCTURES AT SUB 0.1 MICRONS OVER FIELD AREAS IN EXCESS OF 1000 SQ. MM.
- APPLICATIONS OF INNOVATIVE DEVICES AND STRUCTURES BEYOND MICROELECTRONICS
- NEW HIGH-PERFORMANCE DEVICES FOR MILITARY (C4ISR) AND COMMERCIAL MARKETS



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## APPROACH

- ◆ REDUCE CRITICAL TECHNICAL BARRIERS
  - NEXT GENERATION LITHOGRAPHY
    - OPTICAL, PROJ E-B, X-RAY, EUV
  - MASKLESS
    - E-BEAM, ION BEAM, AND OTHERS
  - SUPPORT TECHNOLOGIES
    - MASK TECHNOLOGY, RESISTS, METROLOGY
- ◆ DEVELOPMENTS IN TOOL COMPONENTS, MATERIALS, PROCESSING



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